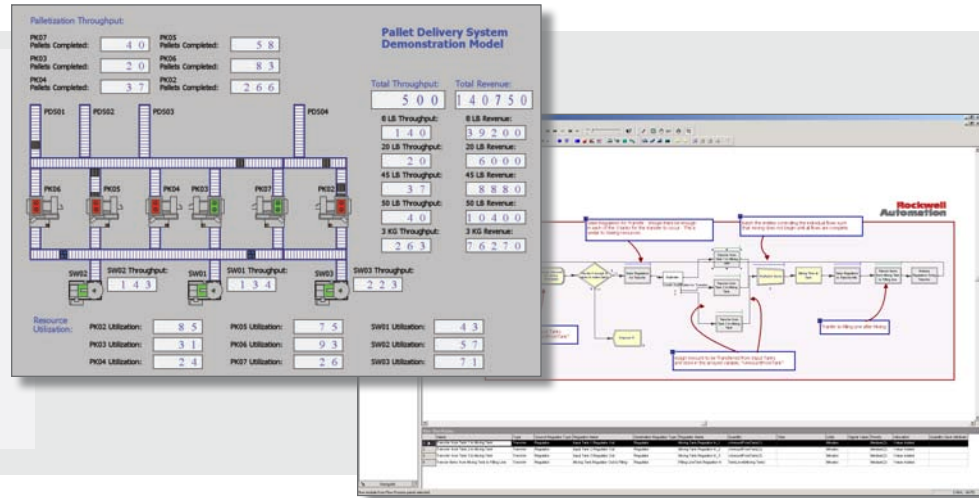


# Arena® Simulation Software

What's New in Version 13.50.00



Organizations worldwide have realized a return of more than 15 times their investment in Arena® and achieved these returns within a few weeks to a few months.



## New Features in Version 13.5

### Attribute Data Module Added to Basic Process Template

The Basic Process template has been enhanced with the addition of the Attribute Data module, which lists all user-specified attributes within the simulation. This construct supports Real and String attribute types as well as single element, 1-D and 2-D attribute arrays. The behavior of this module is similar to the Variables module. On creation of new attributes in the model logic, the attributes will be added automatically to this data module. This will allow all users to utilize string attribute type. This can also provide a mechanism for managing attributes within the simulation.

### Deployment of Arena

Arena now supports silent installs, which gives Information Technology teams the ability to deploy Arena to client computers from a remote server. See Silent Install for more details on using the silent install option.

### New Global Function for Determining Array Sizes

Users may now query the bounds of arrayed variables, expressions and attributes. This can be especially helpful when searching through arrays or for looping through control loops. The functions can be used in the SEARCH and DECIDE modules and FINDJ block, as well as in other applications. The new variables are:

- UBOUNDROW ("SymbolName") - returns the number of rows in the arrayed expression, variable or attribute specified by SymbolName
- UBOUNDCOL ("SymbolName") - returns the number of columns in the arrayed expression, variable, or attribute specified by SymbolName.

The array name is passed as a string and the number of columns or rows is returned as a real value. Should the construct not have a row or column specified, the returned value is 0. The function names are not case sensitive.

e.g., Variable : Name = vMyVariable, Rows = 10

Expression	Result
UBOUNDROW("vMyVariable")	10
UBOUNDCOL("vMyVariable")	0

NOTE: The variable, expression or attribute name must be enclosed in quotation marks.

These functions are also exposed through the Arena object model within the SIMAN object. The syntax for the functions in VBA is the same as in SIMAN.

```
int UBOUNDROW(string <name>)
int UBOUNDCOL(string <name>)
```

Example VBA code is shown below:

```
Dim s As SIMAN
Dim row As Integer
Dim col As Integer

Set s = ThisDocument.Model.SIMAN
row = s.uboundrow("2DUserAttribute")
col = s.UBoundCol("2DUserAttribute")
```

### Expression Builder Has Improved Usability

The Expression Builder has been enhanced to promote usability. This includes the addition of user-specified Attributes to be listed in the Basic Process branch within the "Expression Type" area. Both vertical and horizontal scroll bars have been added to the



“Current Expression” window for navigating particularly large expressions. Line breaks are also enabled to add to readability.

### Find and Replace Enhanced

The Find and Replace tool permits users to conduct searches based on module type as well as searching for instances of a name or a string. For example, a search for “assign” will return results for all module and block ASSIGN’s in the model in addition to any name that includes “assign” as part of it. This is the default search.

A check box labeled “Exclude Module Type” was added to the Find dialog to filter searching to exclude Arena logic constructs. This can assist in expediting the search process, by reducing the number of non-desired search items found. The default value for this check box is “deselected.”

NOTE: The module-type names cannot be replaced.

### License Information in Title Bar

The Arena product version is now displayed in the main window title bar. The displayed product version is determined by the licensed activation installed on the machine. The addition of the version number in the title bar allows customers and technical support to identify easily which version of Arena the customer is licensed to use. The product strings are:

License Type	String Displayed
Commercial	<ul style="list-style-type: none"><li>• Arena Basic Edition</li><li>• Arena Basic Edition Plus</li><li>• Arena Standard Edition</li><li>• Arena Professional Edition</li><li>• Arena Enterprise Suite</li><li>• Arena Runtime</li></ul>
Academic	<ul style="list-style-type: none"><li>• Arena Enterprise Suite Academic</li><li>• Arena Student</li></ul>
Evaluation	<ul style="list-style-type: none"><li>• Arena Demonstration</li></ul>

### Blocks Panel - BRANCH Module Property ‘Max Number of Branches’ Default Changed

The default value for the “Max Number of Branches” property of the BRANCH module has been changed. Previously, if no value was entered for this property, Arena set the maximum to infinite. The default value for the template module is now 1. Models saved in Arena 13.0 or prior are automatically converted when loaded in Arena 13.5.

### Microsoft Windows 7 Compatibility

Arena has been successfully installed and tested under Microsoft Windows 7 (32-bit) without any major issues. Rockwell Automation’s activation licensing will officially support Microsoft Windows 7 in the summer of 2010. Arena’s official support of Windows 7 (32-bit) will follow shortly thereafter. Installing and running Windows 7 (64-bit) is planned for fall 2010.

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### OptQuest Availability

OptQuest® is once again available in demo mode and for student and university usage. This will permit users to evaluate the power of optimization with Arena. For models surpassing demo limits, licensing for OptQuest is still required.

### Forcing Check of Model

An option has been added to *Tools > Option > Run Control* and *Run > Setup > Run Control* to determine whether the model is checked (new .p file initiated) regardless of a model change. If the direct read features for variables and/or expressions are utilized, this option should be selected. The default value is that the check always occurs.

### New and Updated SMARTs

New SMARTs have been added to show some advanced modeling techniques as well as how to use the new features.

These are the new SMART models:

- Advanced Concept Pickup and Dropoff.doe
- Advanced Concept Searching for a value in an array using UBOUND.doe
- Advanced Concept using a string attribute with UBOUND.doe
- External Data Files Reading Rows of Data from Text File with UBOUND.doe
- External Data Files Write Headers and Write with Formatting.doe
- FlowProcess Mixing Tank.doe

### Retired Items

As Arena evolves and as technology dictates, obsolete or little-used features will be removed from Arena. This involves thorough evaluation of how the proposed changes may affect our customers and whether alternatives within Arena are available. This will provide us greater flexibility in the development process and allows us to develop necessary enhancements. The following items will be retired from Arena in current and future releases:

### EVRSI/Master Disk Licensing

FactoryTalk Activation is now the only method for licensing Arena. Arena no longer supports master disk activation, and we can no longer provide replacement EVRSI diskettes.

### Common, Support, and Transfer Templates

The Common, Support and Transfer templates will be removed in the next release of Arena. Users are cautioned not to utilize these templates in new models and to update any existing models that use the Common, Support or Transfer templates.

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